I CLAIM:

1. An expression vector comprising:

(a) a first nucleotide sequence capable of expressing a polypeptide having a thrombin proteolytic cleavage site at the carboxyl terminus of said polypeptide, and;

(b) a second nucleotide sequence consisting essentially of nucleotides 73 to 750 of a full length human erythropoietin receptor cDNA coding sequence, said second sequence being positioned 3′ to said thrombin proteolytic cleavage site and being translationally coupled to said first sequence.

2. A purified fusion protein consisting essentially of:

(a) a first polypeptide segment having an amino terminus and a carboxyl terminus, said segment having a thrombin proteolytic cleavage site at said carboxyl terminus; and

(b) a second polypeptide segment consisting essentially of about amino acid 25 to about amino acid 250 of a full length human erythropoietin receptor protein, said second polypeptide segment being covalently coupled to said carboxyl terminus of said first polypeptide segment.

3. A purified human erythropoietin receptor polypeptide consisting essentially of about amino acid 25 to about amino acid 250 of the full length human erythropoietin receptor protein, said human erythropoietin receptor polypeptide being capable of binding human erythropoietin.

4. A purified antibody having specific binding affinity for a purified human erythropoietin receptor polypeptide, said polypeptide consisting essentially of about amino acid 25 to about amino acid 250 of the full length human erythropoietin receptor protein, said polypeptide being capable of binding human erythropoietin.

5. An immunoassay composition comprising:

(a) a solid phase immunoassay reagent; and

(b) the protein of claim 3 operably coupled to said reagent.

6. An immunoassay composition comprising:

(a) a solid phase reagent; and

(b) an antibody of claim 4 operably coupled to said reagent.

7. A method for obtaining a substantially pure human erythropoietin receptor polypeptide consisting essentially of about amino acid 25 to about amino acid 250 of the full length human erythropoietin receptor protein, said human

erythropoietin receptor polypeptide being capable of binding erythropoietin, comprising:

(a) providing the purified fusion protein of claim 2;

(b) treating said fusion protein with thrombin under conditions allowing cleavage of said polypeptide from said fusion protein, to form a digest mixture;

(c) adding said digest mixture to a solid phase reagent having erythropoietin coupled thereto, under conditions allowing binding of said polypeptide with said solid phase reagent, to form a polypeptide-solid phase composition;

(d) washing said polypeptide-solid phase composition to remove unbound material; and

(e) eluting said polypeptide from said polypeptide-solid phase composition.

add ε'